

Course Syllabus

Course Title: AutoCAD 2D I

Course Code: ATM 1030

Course Delivery: 4-periods

Course Catalogue Description:

The course introduces grade 10 students to the basic technical sketching skills in order to practice the skills of visualization, and basic blueprint reading. Freehand technical sketching, geometric constructions, orthographic (multi-view) projection, isometric drawings, sectional views, and dimensioning will be covered throughout the course. Students will also be briefly introduced to AutoCAD to experiment with computer-aided drafting at the end of the course.

Course Objectives:

Upon the successful completion of this course the student will be able to:

- Present the use of several drawing tools/methods which help in the creation of engineering drawings.
- Lay out a sketch using proportions.
- Create multi-view sketches.
- Sketch and identify surfaces in two-dimensional views from the given three-dimensional views.
- Identify first and third angle projection in standard terms.
- Produce detail drawings in either first or third angle projection from given isometric or oblique drawings.
- Produce sectional views drawing from a given isometric or oblique drawings.
- Describe an AutoCAD command, and options.

- Describe the Cartesian coordinate system using absolute and relative coordinates.
- Describe and use the LINE command to draw lines using the polar coordinate system with both absolute and relative coordinate.

Course Modules:

Module Title	# of Weeks
Module-1: Introduction to Drawing Tools.	1
Module-2: Geometric Constructions.	1
Module-3: Freehand Pictorial Sketching.	1
Module-4: Isometric Drawing.	1
Module-5: Orthographic Projection.	1
Module-6: Sectional View.	1
Module-7: Competency test 1.	0.5
Module-8: Auto CAD User Interface	1
Module-9: Drawing Lines Using Cartesian Coordinates	1
Module-10: Drawing Lines Using Polar Coordinates	1
Module-11: Competency test 2	0.5